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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/514,770	02/28/2000	Shinichi Ito	25484-00796	9467
25224	7590	04/23/2004	EXAMINER	
MORRISON & FOERSTER, LLP 555 WEST FIFTH STREET SUITE 3500 LOS ANGELES, CA 90013-1024			WARREN, DAVID S	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/514,770	Applicant(s) ITO, SHINICHI	
	Examiner David S. Warren	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,5,9,11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,5,9,11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 9, 11 and, 13 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruenbaum (5565641) in view of Cakewalk Professional for Windows User's Manual (Version 2.0; 1992). Regarding claims 3, 5, 9, and 11, Gruenbaum discloses the use of an operation panel (fig. 6), a connection terminal (104, fig. 6) connectable with a keyboard (118, fig. 8) originally designed for use in a computer, a first connection interface for use as a MIDI interface (see MIDI in and MIDI out, top of fig. 9), a second connection interface for connecting the keyboard directly to the electronic musical instrument (Gruenbaum states "[a]n electronic musical instrument ... receives signals from a standard IBM-compatible computer keyboard" – this is interpreted as "connecting the keyboard directly to the electronic musical instrument; see abstract), a first assigning device that assigns functions that can be executed by operating the operation panel to the keys of the keyboard (col. 17, lines 10 – 12), and an execution device (see fig. 1, step 10, option "B" and corresponding fig. 3; functions 42, velocity adjustment; 50, chromatic shift function; or 58, transposition) responsive to

an operation of any of the keys for executing one of the functions assigned to the operated key. Gruenbaum does not disclose the use of a second assignment device that assigns characters, symbols, or numerical values to the keys of the keyboard. Nor does Gruenbaum disclose the use of an execution device for causing the operated key to input a character, symbol or numerical value when a predetermined condition is satisfied. However, Gruenbaum does disclose (see fig. 7), that the keyboard has indicia showing characters (e.g., a “qwerty” keyboard), symbols (i.e., \*, /, =, [, etc.), and numerical values. Gruenbaum also discloses that a display will show “letters” with “sharps and/or “flats” (i.e., sharps and flats are symbols) – see col. 14, lines 43 – 45. However, Gruenbaum is silent as to “assignment device” per se. The Cakewalk User’s Manual discloses the ability for a computer keyboard connected to a musical instrument to initiate (i.e., “assign”) a function (see pg. 215, the section entitled “Computer keys”) or to input characters, symbols and/or numerical values (see pg. 192, for entering a track name). Regarding claim 5, all limitations are discussed supra except the use of “types” of keys. The use of “types” of keys is arbitrary – the examiner interprets character key types to be those keys with a character (e.g., qwerty), symbol key types to be those keys with a symbol (e.g., /,[,), and numerical keys to be those with a number. Regarding independent claim 9, all limitations are discussed supra (including the key “type” limitation) except an “electronic musical instrument originally designed for use in a computer.” Gruenbaum discloses that the musical instrument “may be implemented in a software version for stand alone personal computers” (col. 15, lines 3 – 5). Regarding claims 13 – 15, all limitations are discussed supra except for the “macro

buffer that stores an operation sequence comprising a plurality of operations assigned to at least one of the keys of the keyboard.” Cakewalk discloses the use of a “macro hotkey” feature (pg. 215) where a “type” of key (i.e., computer and/or MIDI instrument) can bind to perform a macro such as “file save” or produce a major arpeggio. The “buffer” to store this macro is inherent and evident in the figure under the heading “Key Bindings” on page 214 (shown in the “Function” dialog box) of the Cakewalk User’s Manual. It would have been obvious to one of ordinary skill in the art to combine the teachings of Gruenbaum and Cakewalk to obtain an electronic musical instrument where a computer keyboard is used to input both musical data and characters, symbols, and/or numerals. One of ordinary skill would be motivated to make this combination since the ability to assign characters (e.g., a song title), or symbols (sharps, #; flats b), and numerals (for inputting velocity and/or pan) is enhanced by using a QWERTY type keyboard (as shown by Gruenbaum). Merely connecting a QWERTY keyboard directly to an instrument would be contemplated by one of ordinary skill.

### ***Response to Arguments***

Applicant’s arguments with respect to claims 3, 5, 9, and 11 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The applicant's attention is directed to the Farrand patent (cited in the previous Office Action) where a computer keyboard is connected directly to a musical instrument.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

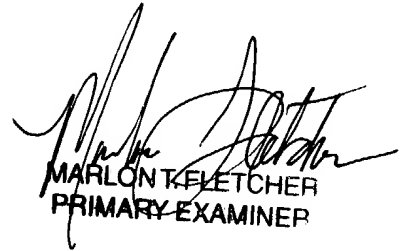
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw  
April 13, 2004



MARLON K. FLETCHER  
PRIMARY EXAMINER